ABSTRACT OF THE DISCLOSURE

A noninvasive system and method of measuring vascular pressure waveforms in a living being includes a tonometric sensor device that reduces, or ideally, eliminates, distortion in the vascular pressure waveforms measured. The data from the vascular pressure waveforms are manipulated to determine cardiovascular conditions of a living being based on a comparison of measured augmentation index and/or pulse wave velocity values to typical values for healthy living beings of similar physiological characteristics.